

MONTANA DEPARTMENT OF FISH AND GAME
FISHERIES DIVISION

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JOB PROGRESS REPORT

State Montana
Project No. F-4-R-21 Title Statewide Creel Census and Statistical Services
Job No. I-a Title Statewide Creel Census
Period Covered July 1, 1971 through June 30, 1972

ABSTRACT

No progress was made on the investigation of the reliability of data from the fishing pressure survey.

The fisherman log program was continued. Statewide creel data were obtained from 367 anglers through entries in their Fisherman Logs. Through these logs, 5,071 fishing trips were reported with a catch of 26,883 fish, exclusive of coarse fish. Average catch per hour during the winter was 1.5 game and sport fish. The average summer catch was 1.6 per hour.

PROCEDURES AND FINDINGS

Fishing Pressure Survey

A mail survey designed by statisticians for estimating fishing pressure on a statewide and individual water basis has been conducted for several years in Montana. Estimates from the 1968-69 survey appeared satisfactory; however, those from the 1969-70 survey are judged to be too high. A detailed investigation has been started to determine if the survey as now conducted in fact results in over-estimates, and if so what corrective measures can be taken.

It was anticipated that this investigation would be completed during the 1971-72 project segment or at least substantial progress would be made. The major portion of the work was to be done by Burwell Gooch, Statistician-Programmer with the State Data Processing Bureau. It was determined that the revision of the Game Division's harvest surveys was more urgently needed. Therefore, work on the fishing pressure survey was postponed at least until the 1972-73 fiscal year and possibly the 1973-74 fiscal year.

Fisherman Logs

The Fisherman Log census was divided into a winter season - October 1, 1970 through April 30, 1971 and a summer season - May 1, 1971 through September 30, 1971.

TABLE 1. Species composition of harvest reported in Fisherman Logs, 1970-71

WINTER SEASON		SUMMER SEASON	
October 1, 1970 - April 30, 1971		May 1, 1971 - September 30, 1971	
6,439 game and sport fish		20,444 game and sport fish	
<u>Species</u>	<u>Percent</u>	<u>Species</u>	<u>Percent</u>
Rainbow trout	42.1	Rainbow trout	42.1
Whitefish	22.2	Brook trout	17.2
Brown trout	12.1	Brown trout	10.9
Brook trout	9.5	Cutthroat trout	10.0
Yellow perch	5.5	Yellow perch	3.5
Cutthroat trout	3.0	Bullhead	3.3
Kokanee	1.1	Whitefish	2.9
Largemouth bass	0.9	Largemouth bass	2.8
Coho salmon	0.8	Kokanee	1.9
Sunfish	0.5	Northern pike	1.1
Sauger/walleye	0.5	Sunfish	1.0
Dolly Varden	0.4	Crappie	0.7
Northern pike	0.3	Dolly Varden	0.5
Lake trout	0.2	Coho salmon	0.5
Arctic grayling	0.2	Goldeye	0.5
Bullhead	0.2	Arctic grayling	0.4
Burbot	0.2	Sauger/walleye	0.4
Crappie	0.1	Lake trout	0.1
Goldeye	*	Channel catfish	0.1
		Burbot	0.1
		Golden trout	*
		Paddlefish	*
		White sturgeon	*
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65 other fish		322 other fish	
<u>Species</u>	<u>Percent</u>	<u>Species</u>	<u>Percent</u>
Peamouth	38.5	Sucker	46.9
Sucker	33.8	Northern squawfish	29.8
Northern squawfish	13.8	Carp	11.8
Shiner	7.7	Peamouth	9.9
Carp	6.2	Sculpin	0.6
		Shiner	0.6
		Freshwater drum	0.3

*Less than 0.05%

Three hundred sixty-seven Fisherman Logs were returned to the Department of Fish and Game. These represented 1,216 fishing trips and 4,232 hours of fishing during the winter season. On these trips, anglers took 6,439 fish exclusive of coarse fish for an average catch of 1.5 fish per man-hour and 5.3 per trip. During the summer period, 3,855 fishing trips and 12,395 hours produced 20,444 fish for an average catch of 1.6 per man-hour and 5.3 per man-day. The species composition of the catch recorded on logs is presented in Table 1.

The information tabulated for individual waters will be distributed to the respective project leaders for inclusion in their lake and stream survey files. It will be stored on magnetic tape in the Data Processing Bureau for future comparisons.

Until now fisherman log data has been summarized on unit record equipment. It was planned that programs would be written during this project segment so it could be processed by a computer. As explained earlier in this report, the statistician-programmer was not available. Therefore, this work was deferred until the 1972-73 project segment.

Prepared by George D. Holton

Date May 24, 1973